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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,874	07/02/2003	Dong Il Kim	11265-008-999	6288

24341 7590 03/04/2005

MORGAN, LEWIS & BOCKIUS, LLP.  
2 PALO ALTO SQUARE  
3000 EL CAMINO REAL  
PALO ALTO, CA 94306

EXAMINER
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HOPKINS, ROBERT A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/613,874

**Applicant(s)**

KIM, DONG IL

**Examiner**

Robert A Hopkins

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,8-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 2-5,7,11 and 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wirthlin(5796472).

Wirthlin teaches a filter structure of a vehicle air conditioner comprising a filter cartridge(50 in figure 10) provided with a plurality of filter layers(pleated) that are formed into a plurality of layers within a case, a light source(54) provided at a position within the filter papers, for radiating light toward one side of the case, the light being blocked at a position when pollutants are deposited on the filter papers enough to cause a contaminated state of the filter to reach a preset state, and a display section(24; column 6 lines 34-44), provided on the case, for transmitting the light radiated from the light source to be checked on an external side with a naked eye.

Claims 6,8-10,12 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wirthlin(5796472).

Wirthlin teaches a vehicle air conditioning filter structure comprising a filter cartridge(50) housing a plurality of filter paper layers(pleated), a light emitting member(54) configured to transmit light through the filter paper layers toward an edge of the filter cartridge, and a display section(24; column 6 lines 34-44) coupled with the

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filter cartridge and positioned to align with transmitting light such that a user can determine a contaminated state of the filter paper. Wirthlin further teaches wherein the light emitting member is a light source housed within the plurality of filter paper layers of the filter cartridge. Wirthlin further teaches wherein the light source is a light bulb. Wirthlin further teaches a filter body configured and dimensioned to receive the filter cartridge. Wirthlin further teaches a switch(not shown) configured and dimensioned to activate the light emitting member.

***Allowable Subject Matter***

Claims 2-5,7,11,13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 recites "wherein the display section comprises a base part made of a transmittable material and a checking part formed with a color which is similar to that of the base part when light is transmitted, but which is contrasted with that of the base part when light is not transmitted". Wirthlin teaches a digital display device. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide wherein the display section comprises a base part made of a transmittable material and a checking part formed with a color which is similar to that of the base part when light is transmitted, but which is contrasted with that of the base part when light is not transmitted because Wirthlin does not teach such a modification.

Claim 3 recites "wherein the case of the filter cartridge is provided on one side with a first contact connected with the light source, and a filter body into which the filter

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cartridge is detachably inserted is provided with a second contact with a power source".

Wirthlin teaches a case , but does not teach wherein the case of the filter cartridge is provided on one side with a first contact connected with the light source, and a filter body into which the filter cartridge is detachably inserted is provided with a second contact with a power source. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a case which is provided on one side with a first contact connected with the light source, and a filter body into which the filter cartridge is detachably inserted is provided with a second contact with a power source because Wirthlin does not teach such a modification. Claims 4 and 5 depend on claim 3 and hence would also be allowable upon incorporation of claim 3 into claim 1.

Claim 7 recites "wherein said display section comprises multiple colored sections such that light emitting from the filter cartridge causes the colors to substantially match and when light is blocked from being emitted by a contaminated filter, the colors substantially do not match. Wirthlin teaches a digital display device. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a display section which comprises multiple colored sections such that light emitting from the filter cartridge causes the colors to substantially match and when light is blocked from being emitted by a contaminated filter, the colors substantially do not match because Wirthlin does not teach such a modification.

Claim 11 recites "wherein the filter cartridge further comprises a first electrical contact and the filter body further comprises a second electrical contact, said first electrical contact and said second electrical contact being configured and dimensioned

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to complete a circuit when said filter cartridge is received by said filter body. Wirthlin teaches a filter body of an air conditioning system(column 1 line 20) dimensioned to receive a filter cartridge, but does not teach wherein the filter cartridge further comprises a first electrical contact and the filter body further comprises a second electrical contact, said first electrical contact and said second electrical contact being configured and dimensioned to complete a circuit when said filter cartridge is received by said filter body. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a filter cartridge with a first electrical contact and a filter body with a second electrical contact because Wirthlin does not teach such a modification.

Claim 13 recites "wherein said switch is activated by opening and closing a glove box of the vehicle". Wirthlin does not teach a specific location for activation of the light switch. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a switch which is activated by opening and closing a glove box of the vehicle because Wirthlin does not teach such a modification.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday, 7am-4pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rah  
March 2, 2005

ROBERT A. HOPKINS  
PRIMARY EXAMINER

*Robert A. Hopkins*  
A.U. 1724